

REMARKS

Claims 1-4, 6-10, 12-16, 18-22, and 24 are pending and stand rejected. All pending claims are believed to be allowable over the references cited by the Examiner as discussed below. Accordingly, a Notice of Allowance for the present application is respectfully requested.

Objection to the Drawings

The Examiner objected to the drawings under 37 CFR 1.83(a). Figure 1 is amended to illustrate the spatial light modulator (SLM) receiving computer control as input so that the SLM can alter its radiation modulation characteristics in response thereto. The object is believed to be overcome. Withdrawal of the objection to the drawings is respectfully requested.

Rejection Under 35 U.S.C. §103(a)

Claims 1, 6, 7, 12-13, 18-19, and 24 stand rejected under 35 U.S.C. §103(a) as being anticipated by May et al. and Hornbeck. Applicants respectfully disagree.

Each of independent claims 1, 7, 13 and 19 recites that the modulation of the radiation by the spatial light modulator (SLM) is in response to computer control and controls the pattern of the electron beams emitted by the photocathode.

May discloses a microlens array 1 that focuses light onto the photoemission layer 5 through the cells of the liquid crystal layer 2. (FIG. 1) The photoemission layer 5 in turn generates electron beams, the directions of which depend on and are solely controlled by the voltages of the photoemission layer 5. In other words, only the photoemission layer 5 and not the liquid crystal layer 2 or the microlens array 1 is responsible for controlling the direction of the electron beams emitted by the photoemission layer. This embodiment does not anticipate the claims as it fails to provide a SLM where the modulation controls the pattern of electron beams emitted. Rather, it is the voltages of the photoemission layer 5 that controls the pattern of electron beams emitted.

The Examiner contends that Hornbeck teaches a computer-controlled SLM (pg. 95, section 6.1, lines 1-25). However, even if May were combined with a teaching of a computer-controlled SLM, the combination would *not* result in the claimed inventions. In particular, May's SLM, even if subjected to computer control, cannot be so controlled as May's SLM is a static, non-modifiable element. Specifically, May's SLM 40 consists of elements 1-5 (col., 6,

lines 10-11), namely, a microlens array 1 formed on or attached to a rear surface of a liquid crystal device (LCD) comprising a liquid crystal layer 2 sandwiched between glass layers 3, 4 and a photoemission layer 5 formed on the upper surface of the glass layer 4 (col. 3, line 66 – col. 4, line 5). None of these elements, either alone or as a whole, can be adjusted and thus cannot be subject to computer control.

In contrast, each of independent claims 1, 7, 13 and 19 utilizes computer control of the SLM to control the pattern of electron beams emitted. Such a feature is neither suggested nor achieved with the combination of May and Hornbeck.

In view of the foregoing, withdrawal of the rejection of independent claims 1, 7, 13 and 19 as well as claims dependent variously therefrom under 35 U.S.C. §103(a) is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 2-4, 8-10, 14-16, and 20-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over May and Hornbeck and further in view of Engstrom or Brandes.

However, dependent claims 2-4, 8-10, 14-16, and 20-22 are allowable at least because the independent claims 1, 7, 13, and 19 from which they variously depend are allowable as discussed above. Thus withdrawal of the rejection of dependent claims 2-4, 8-10, 14-16, and 20-22 under 35 U.S.C. §103(a) is respectfully requested.

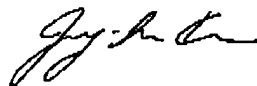
CONCLUSION

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

In the unlikely event that the transmittal letter accompanying this document is separated from this document and the Patent Office determines that an Extension of Time under 37 CFR 1.136 and/or any other relief is required, Applicant hereby petitions for any required relief

including Extensions of Time and/or any other relief and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-1217 (Order No. AMATP010).

Respectfully submitted,



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Attachments